NUCLEAR SAFETY STANDARDS COMMITTEE
(NUSSC)

Report of the 40th Meeting
1 – 3 December 2015

International Atomic Energy Agency
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Table of Contents

1. General Issues ........................................................................................................................................... 4

1.1. Opening of the Meeting .......................................................................................................................... 4

1.2. Chairman's Introduction .......................................................................................................................... 4

1.3. Adoption of the Agenda of the 40th NUSSC Meeting ........................................................................... 4

1.4. Approval of the Report of the 39th NUSSC Meeting .............................................................................. 4

1.5. Actions of NUSSC Meetings ................................................................................................................... 5

1.6. Dates of the next meetings ....................................................................................................................... 5

1.7. Report from the previous meeting of the Chairs ...................................................................................... 5

1.8. CSS 38th Meeting Report ....................................................................................................................... 6

1.9. Demonstration of the IT Platform ............................................................................................................ 7

1.10. Results of the review of SSG-25 and NS-G-1.5 .................................................................................... 8

2. Review of IAEA Safety Standards ............................................................................................................. 10

2.1. DS456 Draft Safety Requirements: Leadership and Management for Safety ....................................... 10

2.2. DS476 Draft Safety Requirements: Safety of Research Reactors.......................................................... 12

2.3. DS432 Draft Safety Guide: Radiation Protection of the Public and Protection of the Environment ........ 12

2.4. DS427 Draft Safety Guide: General Framework for Prospective Radiological Environmental Impact Assessment and Protection of the Public .............................................................................. 12

2.5. DS442 Draft Safety Guide: Regulatory Control of Radioactive Discharges to the Environment .......... 13


2.7. DS486 Draft Safety Guide: Establishing the Safety Infrastructure for a Nuclear Power Programme .... 14

2.8. DS479 Draft Safety Guide: Operating Experience Feedback for Nuclear Installations ....................... 14

2.9. Status of Safety Standards ....................................................................................................................... 15

3. Review of Document Preparation Profiles (DPPs) ..................................................................................... 17

3.1. DS495 DPP Draft Safety Requirements: Regulations for the Safe Transport of Radioactive Material (Revision of SSR-6) ...................................................................................................................... 17

3.2. DS494 DPP Draft Safety Guide: Protection against Internal Hazards in the Design of Nuclear Power Plants ........................................................................................................................................... 18

4. NSGC Documents for clearance ................................................................................................................ 18

4.1. NST048 Draft Implementing Guide: Security of Radioactive Material in Use and Storage and of Associated Facilities .................................................................................................................. 18

4.2. NST020 Implementing Guide: Sustaining a Nuclear Security Regime .................................................. 18

5. Miscellaneous ............................................................................................................................................. 19
5.1. Update on the Establishment of the Emergency Preparedness and Response Standards Committee (EPReSC).................................................................................................................................................................................. 19
5.2. NST036 Draft Technical Guidance: Security of I&C Systems for Nuclear ............................................ 20
5.3. Information on the TECDOC: Considerations on the Application of the IAEA Safety Requirements for Design of NPPs .............................................................................................................................................. 20
5.4. ENISS letter on the Safety and Security Glossaries.............................................................................. 22
6. Closure of the Meeting.................................................................................................................................................................................................................................................. 23
6.1. Actions following the 40th NUSSC Meeting.......................................................................................... 23
6.2. Conclusions....................................................................................................................................................... 23
The discussions held on the drafts of Safety Standards, Technical Guidance and TECDOCs at the previous NUSSC Meetings.............................................................................................................................................. 24
Annex I – Agenda.................................................................................................................................................. 37
Annex II – List of Actions for the 40th NUSSC Meeting.................................................................................. 41
1. GENERAL ISSUES

1.1. Opening of the Meeting

The meeting was opened by Mr. J.C. Lentijo (DDG-NS) and Mr. G. Rzentkowski (DIR-NSNI).

Mr. Lentijo welcomed the participants and introduced himself. He emphasized the importance of safety standards and the primary contribution of the different review committees and CSS in obtaining consensual and high-quality documents. He thanked the participants for their dedication in the development of safety standards. Mr. Lentijo also referred to the 1st meeting of the Emergency Preparedness and Response Standards Committee (EPReSC) which was taking place at the same time as the NUSSC Meeting.

Mr. Rzentkowski stressed that NUSSC has been existing for twenty years. He talked about the safety standards which had been recently approved by CSS. In particular, DS460 (Communication and Consultation with Interested Parties by the Regulatory Body) implies the involvement of stakeholders in the regulatory processes and actions of regulatory bodies, according to the IAEA. Mr. Rzentkowski underlined a few points of the agenda:

- The follow-up to the previous NUSSC Meeting regarding the update of Safety Guides;
- The update of GS-R-3 (DS456), which was already discussed a number of times and should come to an end;
- DS476 setting out the safety requirements for research reactors.

1.2. Chairman’s Introduction

Mr. F. Feron, NUSSC Chairman, broached a few points. In terms of safety standards, two documents outlining requirements were put on the agenda: DS456 and DS476. Regarding DS456, the NUSSC Chairman thanked the volunteers who had participated in the consultancy meeting of October 2015. The NUSSC Chairman stressed that the presentation/demonstration of the IT platform as an opportunity to understand the possibilities of this system and the help it could bring to the development of safety standards.

1.3. Adoption of the Agenda of the 40th NUSSC Meeting

The Agenda of the 40th NUSSC Meeting was approved. It was attached to this report as an annex (Annex I).

1.4. Approval of the Report of the 39th NUSSC Meeting

The report of the 39th NUSSC Meeting was adopted, including the part on the joint session of NUSSC and WASSC.

1.5. Actions of NUSSC Meetings
The progress made on the actions decided at the 39th NUSSC Meeting and during the joint session with WASSC was presented by Mr. M. Svab, NUSSC Scientific Secretary. The actions were either already performed or dealt with during the NUSSC Meeting.

1.6. Dates of the next meetings

The dates of the next NUSSC Meetings were confirmed:

- The 41st NUSSC Meeting will take place on 20 – 24 June 2016; and
- The 42nd NUSSC Meeting will be held on 28 November – 2 December 2016.

1.7. Report from the previous meeting of the Chairs (November 2015)

The report was introduced by Mr. Feron, who recalled that prior to the 38th CSS Meeting, a meeting of the five Chairs of the review committees and NSGC was held. The new Chairs of NSGC (Mr. Bart Dal, Pays-Bas) and of EPReSC (Ms. Ann Heinrich, USA) participated in the meeting. The discussions focused on:

- The creation of the new review committee for emergency situations (“Emergency Preparedness and Response Standards Committee” – EPReSC) and the consequences on the safety standards under development. For example, EPReSC was designated as the “lead committee” for DS474 and DS475;
- The update of SPESS A, B and C to take into account the creation of EPReSC, the position of CSS on the quantitative criteria and the existence of a new IT tool (IT platform);
- The process of publication of safety standards and the role of the Publication Committee, in view of the current situation of DS462;
- The notion of “good practice” and its use in safety standards, the review meetings of international conventions (safety and waste) or the IRRS and OSART missions. This subject goes far beyond the topic of safety standards;
- The progress made on DS456 and the recent positions of RASSC and WASSC on the last version.

An extensive and lively discussion took place regarding the composition of the Interface Group (IG) related to the participation of the Chair of EPReSC and the constraint of the equal number of people with safety and security “profiles”. The Chairs of NUSSC, RASSC, TRANSSC and WASSC were surprised that the Chair of NSGC was not a member of the IG. As a compromised solution, the IAEA suggested, in the future, to consult by email the Chairs of the review committees and to include in copy of this consultation the other members of NSGC to the IG.

During a consultancy meeting composed of representatives of NSGC to the IG:

- NSGC decided to increase the coordination between the representatives to the IG and the information of other members of NSGC on the works of the IG;
- NSGC suggested defining two types of interfaces: the general interface and the specific interface. The first one can be translated into the safety standards in a generic paragraph on the interface between safety and security, while the second implies the drafting of ad-hoc recommendations;
Although NSGC made a proposal for a draft generic paragraph, the IAEA emphasized that a generic text was already available in SPES C, but that the latter could change.

Several amendment proposals for a generic text were formulated during the meeting or in the following days. The resulting version was included in SPES C.

1.8. CSS 38th Meeting Report

The report was introduced by Mr. D. Delattre (NS), CSS Scientific Secretary, to the participants. The 38th Meeting of CSS was the last meeting of its current term. The following points were discussed:

- The progress made in the implementation of the long-term structure of safety standards;
- The progress made in developing DS456 on Safety Requirements on Leadership and Management for Safety;
- The revision of SPES A, B and C, and the new SPES E;
- The relevance of publications relating to both safety and security for the use of radioactive sources;
- The changes made or considered following the proofreading by the Publication Committee (thus after the approval by CSS);
- The preparation of the end-of-term report, including recommendations for the upcoming mandate.

Following the discussions on the composition of the Interface Group, DDG-NS decided that the six Chairs of the committees (five safety review committees and NSGC) will be members of the IG.

CSS approved the following Safety Guides:

- **DS360** Safety of Nuclear Fuel Reprocessing Facilities;
- **DS381** Safety of Nuclear Fuel Cycle Research and Development Facilities; and
- **DS460** Communication and Consultation with Interested Parties by the Regulatory Body.

CSS approved the following DPPs:

- **DS449** Format and Content of Safety Analysis Report for NPPs (revision of GS-G-4.1); and
- **DS493** Structure and Information to be Included in a Package Design Safety Report (PDSR) for the Transport of Radioactive Material.

The IAEA also demonstrated the practical use of its new IT tool (IT Platform called “OUI”) for the preparation and the publication of safety standards. The IAEA insisted on the functionalities expected and their relevance for preparing and using safety standards.


The presentation on the IT Platform was given by Mr. Delattre, who recalled the objective of the IT system (IT platform and “OUI” On-line User Interface) to facilitate the compilation of experience
feedback regarding the implementation of safety standards and documents of the Nuclear Security Series; the review of this feedback, as well as of standards or documents, their update and publication. Then a demonstration of the functionalities of the IT Platform was carried out.

The system aims at:

- Facilitating the access to safety standards and thus the requirements or recommendations they encompass, including by various search methods (by number, by subject, by key word, by type of installation/activity, by phase in the life of an installation);
- Facilitating the semantic consistency between publications (terminology of the safety and security glossaries);
- Facilitating the technical consistency between publications, including as a result of the recent publication of a new standard;
- Facilitating the links between requirements and recommendations;
- Actualizing the links between different safety standards and, therefore, identifying the consequences of developments made or considered to one of these standards;
- Collecting the needs for changes by publication, requirement or recommendation, regardless of their origin.

The IAEA also started to enter the data and metadata into the system. By the end of the first quarter 2016, all the safety requirements and safety guides are likely to have been uploaded. As regards the metadata, it seemed that a little bit more time would be needed. The system would be available on Nucleus shortly.
During the meeting, clarification issues were raised, for example, regarding the verification of the relevance of the metadata. A question on the possibility to retrospectively retrieve all safety standards in force on a given date was partially left open.

- NUSSC noted the efforts accomplished by the IAEA to develop this IT tool and, in light of the demonstration performed during the meeting, NUSSC acknowledged the value of this tool to facilitate the development and the awareness of safety standards, as well as other publications, of the IAEA.

- Once the IT tool is up and running, NUSSC invited the IAEA to determine if amendments to SPESS had to be made, including for the development of DPPs and the first version of a safety standard, in order to take fully advantage of the functionalities of this tool.

1.10. Results of the review of SSG-25 and NS-G-1.5 to reflect the Vienna Declaration (information on the review of NS-G-1.7 and NS-G-1.11 will be provided under 3.2)

The Vienna Declaration on Nuclear Safety – which is the outcome of the Diplomatic Conference to Consider a Proposal by Switzerland to Amend the CNS – states that « The Contracting Parties to the CNS request the IAEA Director General to [...] transmit this Declaration to the IAEA Commission on Safety Standards for its consideration with the four safety standards committees under its aegis, of the technical elements contained therein with a view to incorporating them as appropriate into the relevant IAEA Safety Standards [...] ».

In order to take into account this conclusion, the IAEA Director General wrote to the Chair of CSS, so that CSS and the review committees implement this conclusion. Within this framework, the IAEA conducted a “gap analysis” on the Safety Requirements, so that DS462 could be approved by the Board of Governors. The IAEA concluded that the Safety Requirements, as revised in the aftermath of the Fukushima Daiichi NPP accident, did reflect the conclusions of the Vienna Declaration.

As regards the review and potential update of the Safety Guides, a discussion took place at the 39th NUSSC Meeting on the prioritization of their review, on the basis of a first analysis by the IAEA. The objective is to ensure that new requirements in DS462 were appropriately reflected in the Safety Guides (the question is not so much whether the Safety Guides will be ultimately updated in order to be consistent with the Safety Requirements, but whether this exercise must be carried out in the short term). NUSSC concluded that, in addition to the review of SSG-25 (Periodic Safety Review for NPPs, 2013), this review should focus on:

- **NS-G-1.5** External Events Excluding Earthquakes in the Design of NPPs (2003);
- **NS-G-1.7** Protection against Internal Fires and Explosions in the Design of NPPs (2004); and
- **NS-G-1.11** Protection against Internal Hazards other than Fires and Explosions in the Design of NPPs (2004).

According to the second point of the Vienna Declaration on Nuclear Safety, « Comprehensive and systematic safety assessments are to be carried out periodically and regularly for existing installations throughout their lifetime in order to identify safety improvements that are oriented to meet the above objective. Reasonably practicable or achievable safety improvements are to be implemented in a timely manner. »
The periodic safety assessments, or even the safety reassessments, are provided for in the requirements of GSR Part 4 (paragraphs 1.8 and 4.8, Requirements 8 and 24) and, for NPPs, in SSR-2/2 (Requirements 9 and 12).

Regarding SSG-25, after having recalled its structure and some of its recommendations (including the 14 safety related topics to be reviewed during a safety reassessment), the IAEA concluded that SSG-25 was actually dealing with the objective to improve safety in a manner consistent with the Vienna Declaration.

However, the implementation phase of the improvements resulting from the reassessment is not directly addressed in SSG-25 (« The review should identify findings (which may be positive (strengths) or negative (deviations)) and should lead to proposals for safety improvements and an integrated implementation plan » ; « Finalization of the integrated implementation plan: the integrated implementation plan, comprising reasonable and practicable safety improvements to be carried out in accordance with a time schedule agreed with the regulatory body, should be finalized » ; « The phase following PSR in which the safety improvements are implemented is not considered an activity of PSR and so is not addressed in detail in this Safety Guide. »). This is not an issue, given the fact that paragraph 4.39a of GSR Part 1 covers explicitly this question (« The regulatory body shall ensure, adopting a graded approach, that authorized parties routinely evaluate operating experience and periodically perform comprehensive safety reviews of facilities, such as periodic safety reviews for nuclear power plants [11]. These comprehensive safety reviews are submitted to the regulatory body for assessment or are made available to the regulatory body. The regulatory body shall ensure that any reasonably practicable safety improvements identified in the reviews are implemented in a timely manner. »).

⇒ NUSSC confirmed the conclusion of the IAEA: SSG-25 does not need to be revised in light of the Vienna Declaration.

Regarding NS-G-1.5, the IAEA reminded the NUSSC Members of the scope of the document which covers various external hazards and is not very detailed in terms of recommendations (nevertheless, several Safety Reports, TECDOCs and other publications of the IAEA contains information on the characterization of these various hazards). The IAEA concluded that a revision of the guide was necessary and the relevant DPP would be on the agenda of the next NUSSC Meeting.

NUSSC emphasized that the need for leading a review of NS-G-1.5 was identified at the 35th NUSSC Meeting. The IAEA recalled that SSR-1 (Site Evaluation for Nuclear Installations, revision of NS-R-3) was under development (step 5 according to SPESS) and, therefore, the Agency will work in parallel on these topics.

⇒ NUSSC took note of the conclusion of the IAEA relating to the initiation of an updating process of NS-G-1.5.

2. REVIEW OF IAEA SAFETY STANDARDS

2.1. DS456 Draft Safety Requirements: Leadership and Management for Safety (revision of GS-R-3)
This document was introduced to the participants by Mr. P. Tarren (NSNI). The DPP was approved at the end of 2011. The consultation of Member States took place at the end of 2013 and a number of comments were received. In order to address these comments, two consultancy meetings were held and DS456 was reworked. Ultimately, the IAEA severely redrafted the document. Therefore, a table summarizing the comments received from Member States and their resolution was not made available to the review committees.

NUSSC and the other review committees provided more than 350 comments. Two thirds of them were accepted. Following RASSC not approving the document, the IAEA used the NUSSC Meeting and the joint session of NUSSC and WASSC as opportunities for discussion on the way forwards to achieve consensus. It was then agreed that a meeting of NUSSC and WASSC volunteers would take place in early October 2015 to prepare a new version of DS456 taking into account the comments received. Following this meeting, that gathered about 20 people, the IAEA distributed a new version of DS456 (version of the 22nd of October 2015 comprising 14 overarching requirements).

RASSC, WASSC and NSGC gave their approval on this version. RASSC and WASSC stressed that they had little time to review this last version of DS456, but in order to avoid delays in the publication of DS456, they would followed NUSSC’s opinion.

During the meeting, the discussions focused on:

- The update or creation of guides based on DS456;
- The resolution of comments recently issued by Japan, Finland and Germany;
- Paragraph 1.7: replace “type” with “safety significance”;
- Paragraph 4.15: the possibility to reiterate current paragraph 2.6 of GS-R-3, which seems to be clearer and more precise, while avoiding to use the word “product”;
- In Requirement 10, how should be understood the term “safely”? It would be probably more accurate to use “without compromising safety” (as it was the case in paragraph 4.28);
- Paragraphs 6.12 and 6.15: are there differences between “periodically” and “regularly”? Probably not;
- Paragraph 6.13 contains the word “should”, which is not possible in a Safety Requirement. Moreover, this paragraph could be placed at the end of the section (after paragraph 6.19);
- Paragraphs 6.15 to 6.18, including regarding their overall consistency, as well as the notion of “independent assessment” and the possibility that it is implemented by the organization itself and not by a third party;
- The definitions of “management system review” and “self-assessment”, included in the draft of the 2016 Safety Glossary, which was made available online in English and providing the new definitions stated in GSR Part 3, GSR Part 7 and SSR-2/1;
- Redundancy of paragraphs 6.120 and 6.121.

\[ NUSSC approved DS456 for submission to CSS, provided that the following modifications were implemented in the document: \]

1.7. The requirements established in this Safety Requirements publication apply to all facilities and activities as specified in 1.10. However, the way in which they are to be met may vary depending on the safety significance type and complexity of the facility or activity….

4.15. The criteria used to grade the development and application of the management system shall be documented in the management system [36]. The following shall be taken into account:
a) The safety significance of and complexity of the organisation, facility or activity and the hazards managed by the management system.

b) The hazards and the magnitude of the potential impact (risks) associated with the safety, health, environmental, security, quality and economic elements of each facility or activity.

b) c) The possible consequences on safety if a failure or an unanticipated event occurs or if an activity is inadequately planned or improperly carried out.

Requirement 10: Management of processes and activities
Processes and activities shall be developed and effectively managed to achieve the organization’s goals safely without compromising safety.

Requirement 13: Measurement, assessment and improvement of the management system
The effectiveness of the management system shall be measured, assessed and improved so as to enhance safety performance and enable prevention, including by minimizing occurrences of safety issues.

6.12. All processes shall be periodically regularly evaluated for their effectiveness and ability to ensure safety.

Locate 6.13 after 6.19 and modify 6.13: 6.13 Organizations should have arrangements to learn from success and strengths in order to develop their continuous improvement

6.15. Independent assessments (including audits) and self-assessments of the management system shall be conducted regularly by an independent external organisation to evaluate its effectiveness, and identify opportunities for improvement. Lessons learned and any resulting significant changes shall be analyzed with regard to their implications for safety.

6.17. Senior management shall conduct a review of the management system at planned intervals to confirm its suitability and effectiveness and its ability to enable the objectives of the organization to be accomplished, with account taken of new requirements and changes in the organization. When appropriate this review shall benefit from the insights of independent assessment (including audits). This review and subsequent improvements shall cover all significant sources of information on safety performance.

6.18. The management shall evaluate the results of the independent assessments. Any lessons learned and following any significant changes shall be analyzed with regard to.

Renumber 6.120 to 6.122 to 6.20 to 6.21 and delete 6.121 (redundant with 6.120) (note from the Secretariat: the numbering of these paragraphs was slightly changed by the Secretariat later on, in consistency with the numbering of the other paragraphs).

2.2. DS476 Draft Safety Requirements: Safety of Research Reactors (revision of NS-R-4)

Mr. D. Sears (NSNI) introduced the document to the NUSSC Members. The DPP was approved in 2014. The consultation of Member States took place at the beginning of 2015. Nearly 500 comments were received and most of them were accepted by the IAEA. NUSSC and the other review committees provided about 80 comments. The table showing the actions taken by the IAEA on the comments received from Member States was posted on the website of the IAEA in September 2015.
The one showing the actions taken on the comments received for the preparation of the NUSSC Meeting was posted online at the end of October. RASSC, WASSC and NSGC approved DS476.

The IAEA emphasized that the United States requested the creation of an appendix bringing together the requirements regarding sub-critical assemblies. The IAEA pointed out that this would lead to the duplication of the requirements, lengthen the document and complicate DS476. The IAEA recalled that this option had been considered during the development of the document, but set aside at that time. The representative of the United States recalled that the NRC was regulating only part of the sub-critical assemblies. The representative also stressed that there were two major types of installations: those with low-enriched or not enriched fuel sub-critical assemblies and the others. For the first major type, only a few requirements are relevant.

The IAEA stated that several States possess such installations and others plan to build facilities of the same type. The IAEA also noted that technical comments from the United States were taken into account and, in most cases, accepted. The United States wished to benefit from more time to review the technical consistency of the requirements applicable to the second major type of facilities, with the support of the US Department of Energy, as the current requirements could be insufficient.

⇒ NUSSC requested the IAEA to develop, by Christmas 2015, a table of the requirements applicable to the two sub-critical assemblies’ families (this work should be facilitated by the process provided for in paragraph 1.9 of DS476) and to add the table to the DS476. If, by the end of January 2016, a NUSSC Member considers that the document comprises inconsistencies and that new or revised requirements must be included, the document will not be transmitted to CSS and it will have to be reviewed once again by NUSSC at its next meeting. If no comment is received, the position of NUSSC will be that DS476 can be transmitted to CSS.

⇒ Following the CSS recommendation and considering the difficulties encountered with the editorial review of DS462 (5 Safety Requirements revised by amendments) after CSS endorsement, NUSSC requested that any subsequent editorial review for the Department of Nuclear Safety and Security (NS) and for publication of DS456 and DS476 (if submitted to CSS) be performed in a fully transparent manner before the CSS endorsement and the Board of Governors approval of the texts for publication.

2.3. DS432 Draft Safety Guide: Radiation Protection of the Public and Protection of the Environment

This document was introduced to the participants by Mr. T. Boal (NSRW). The DPP was approved in 2009. Member States were consulted at the beginning of 2015 and about 150 comments were received. NUSSC and the other review committees provided about 20 comments.

The tables showing the comments’ resolution were posted on the website of the IAEA prior to the NUSSC Meeting, as well as an updated version of the draft Safety Guide.

The IAEA recalled that RASSC, WASSC, TRANSSC and NSGC gave their approval on DS432.

⇒ NUSSC approved DS432 for submission to CSS.
2.4. DS427 Draft Safety Guide: General Framework for Prospective Radiological Environmental Impact Assessment and Protection of the Public

Mr. D. Telleria (NSRW) introduced the document to the NUSSC Members. The DPP was approved in 2010. The consultation of Member States took place at the beginning of 2015. About 350 comments were received and 300 were accepted. NUSSC and the other review committees provided about 30 comments. Most of them were accepted.

The tables showing the comments’ resolution were posted on the website of the IAEA prior to the NUSSC Meeting, as well as an updated version of the Safety Guide.

The IAEA recalled that RASSC and WASSC gave their approval on DS427. They concluded that:

- Dealing with the topic of the protection of the environment in an annex, as an example, was a reasonable solution;
- Annex III (examples from Member States) should be deleted from the guide;
- The title of the guide should be shortened (prospective radiological environment impact assessment for facilities and activities).

During the NUSSC Meeting, the discussions focused on:

- The possibility to assess, a priori, the exposure owing to waste and rubble resulting from an accident (paragraph 5.58);
- The extent of the recommendations issued by the regulatory body to perform the assessment (paragraph 4.6), including the hypotheses of source term.

⇒ NUSSC approved DS427, as modified by RASSC and WASSC, for submission to CSS, provided that paragraph 5.58 j) was deleted; the second sentence of paragraph 4.6 was reworded; and the last sentence of the same paragraph was deleted.

2.5. DS442 Draft Safety Guide: Regulatory Control of Radioactive Discharges to the Environment

This document was also introduced to the participants by Mr. D. Telleria. The DPP was approved in 2010. Member States were consulted at the beginning of 2015. Nearly 400 comments were issued and most of them were accepted. NUSSC and the other review committees provided about 40 comments. All of them were accepted, except two. This Safety Guide is an update of WS-G-2.3 (2000).

The tables showing the comments’ resolution were posted on the website of the IAEA prior to the NUSSC Meeting, as well as an updated version of the Safety Guide.

The IAEA recalled that RASSC and WASSC gave their approval on DS432 with a few amendments.

⇒ NUSSC approved DS442 for submission to CSS.

Mr. V. Ljubenov (NSRW) introduced the document to the NUSSC Members. The DPP was approved in 2011. The consultation of Member States took place at the beginning of 2015. Nearly 450 comments were received and about 80% of them were accepted. NUSSC and the other review committees provided about 80 comments. Most of them were accepted.

A technical meeting and five consultancy meetings took place to develop DS452. The tables showing the comments’ resolution were posted on the website of the IAEA prior to the NUSSC Meeting, as well as an updated version of the Safety Guide.

The IAEA recalled that WASSC and NSGC gave their approval on DS452 with a few amendments. The main points discussed by WASSC and NSGC were presented, in particular the explicit reference to the airplane crash in case of external hazards to be considered.

⇒ NUSSC approved DS452 for submission to CSS, as modified by WASSC.

2.7. DS486 Draft Safety Guide: Establishing the Safety Infrastructure for a Nuclear Power Programme

The document was presented to the NUSSC Members by Mr. T. Kobetz (NSNI). The DPP was approved at the end of 2014. NUSSC and the other review committees provided about 180 comments. Almost all of them were accepted. The purpose of this document is to update SSG-16 (2011). RASSC, WASSC, TRANSSC and NSGC gave their approval on DS486 for its submission to the Member States for consultation.

⇒ NUSSC approved DS486 for submission to Member States for comments.

2.8. DS479 Draft Safety Guide: Operating Experience Feedback for Nuclear Installations

Mr G. Prohaska (NSNI) introduced the document to the participants. The DPP was approved in 2014. NUSSC and the other review committees provided about 240 comments, two thirds of which were accepted.

DS479 is an update of NS-G-2.11 (2006). During the NUSSC Meeting, the discussions focused on:

- the differences between Figure no. 1 of the document and that of NS-G-2.11
- the consistency between the “boxes” of Figure no.1 and the recommendations of the guide;
- Figure no. 2 as it also raises needs for clarification (e.g. how to get to the box “immediate review”?)
- The fact that current recommendations are rather well adapted to the events of daily life, but not so much to major accidents like the Fukushima Daiichi NPP accident; and
- Improvements to the wording, for clarity purposes, in the following paragraphs: 2.12, 2.22, 2.28, 2.47, 2.58, 2.59, 2.67, 2.69, 2.75, 3.4 and 3.6.
NUSSC approved DS479 for submission to Member States for comments. However, NUSSC invited the IAEA beforehand to:

- Review Figures no. 1 and 2 and make sure that each of their “boxes” is subject to recommendations later in the guide;
- Improve the drafting of paragraphs 2.12, 2.22, 2.28, 2.47, 2.58, 2.59, 2.67, 2.69, 2.75, 3.4 and 3.6; and
- Amend the draft guide to highlight differences in coping with major events, possibly by adding a paragraph.

2.9. Status of Safety Standards

A presentation on the status of safety standards was given by Mr. M. Svab.

The following safety standards were published by the IAEA since the previous NUSSC Meeting or were close to publication:

- **GSR Part 7** Preparedness and Response for a Nuclear or Radiological Emergency (DS457);
- **SSG-39** Safety Guide on the Design of I&C Systems for NPPs (DS431) approved by the Publication Committee (December 2014);
- **SSG-35** Site survey and site selection for nuclear installation (DS433);
- **SSG-37** I&C for research reactors (DS436);
- **SSG-38** Construction for Nuclear Installations (DS441).

The updates of GSR Part 1, NS-R-3, SSR-2/1, SSR-2/2 and GSR Part 4 (DS462) were under publication. Their review by the Publication Committee led to editorial changes that lead to internal discussions at the IAEA.

NUSSC regretted the time that elapsed between the approval of DS462 by CSS (October 2014) and their publication.

The IAEA currently explores the possibility of conducting in parallel the approval by CSS and the review by the Publication Committee.

To date, in terms of safety standards, the situation may be summarized as follows:
The IAEA detailed the progress made on the development of safety standards with respect to the 14 steps of the preparation and review process of a draft safety standard (SPESS B). The IAEA made reference to the documents to be reviewed by NUSSC, i.e. those that are at steps 2, 6 and 10, as well as the planned/projected time frames for the consultation of NUSSC.

⇒ **NUSSC confirmed the value of this information.**

Following the presentation on the status of safety standards, questions were asked about the progress on the review/revision of Safety Guides, in particular those identified by NUSSC as *a priori* impacted by the lessons learned from the Fukushima Daiichi NPP accident:

<table>
<thead>
<tr>
<th>NUSSC Meeting</th>
<th>Conclusion on the prioritization</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUSSC 34</td>
<td>NS-G-1.9</td>
<td>Reactor cooling system, DS481, DPP approved; potential first review at NUSSC 41</td>
</tr>
<tr>
<td></td>
<td>NS-G-1.10</td>
<td>Containment, DS482, DPP approved; potential first review at NUSSC 41</td>
</tr>
<tr>
<td></td>
<td>NS-G-2.15</td>
<td>Severe accident, DS483, DPP approved; ongoing consultation of Member States (consultancy meeting scheduled in the first quarter 2016)</td>
</tr>
<tr>
<td>NUSSC 35</td>
<td>NS-G-1.6</td>
<td>Seismic design and qualification, DS490, DPP approved; potential first review at NUSSC 42</td>
</tr>
<tr>
<td></td>
<td>SSG-2</td>
<td>Deterministic safety analysis, DS491, DPP approved; potential first review at NUSSC 41</td>
</tr>
<tr>
<td></td>
<td>NS-G-1.5</td>
<td>DPP on the agenda of NUSSC 41</td>
</tr>
</tbody>
</table>

The diagram illustrates the progress made in each step of the safety standard development process.
Based on the information provided in the table above, the agenda of the next NUSSC Meeting might be quite heavy in terms of Safety Guides to be reviewed. In such a case, it may become necessary to extend the duration of the 41st NUSSC Meeting.

⇒ **NUSSC invited the IAEA to stick to the deadlines for making available draft guides and comment resolution tables.**

The IAEA also posted on the website of NUSSC a document on the status of TECDOCs and Safety Reports under development.

### 3. REVIEW OF DOCUMENT PREPARATION PROFILES (DPPs) – Safety Standards

#### 3.1. DS495 DPP Draft Safety Requirements: Regulations for the Safe Transport of Radioactive Material (Revision of SSR-6)

This document was introduced to the NUSSC Members by Mr. S. Whittingham, as Ms. N. Capadona (NSRW) could not attend the meeting.

This DPP aims at updating SSR-6 (2012). No comment was received prior to the NUSSC Meeting. During the NUSSC meeting, the discussions focused on the special arrangements, particularly in conjunction with decommissioning activities, and management systems.
3.2. DS494 DPP Draft Safety Guide: Protection against Internal Hazards in the Design of NPPs

Mr. J. Yller (NSNI) introduced the document to the participants. This DPP aims at merging and updating NS-G-1.7 (Protection against Internal Fires and Explosions in the Design of NPPs - 2004) and NS-G-1.11 (Protection against Internal Hazards other than Fires and Explosions in the Design of NPPs - 2004).

Prior to the NUSSC Meeting, about 30 comments were received. During the NUSSC Meeting, the discussions focused on:

- The ability for the IAEA to get all the necessary expertise for all hazards dealt with in the document; and
- Accounting for electromagnetic interferences, possibility by making reference to SSG-34 and SSG-39.

⇒ NUSSC approved DS494 DPP for submission to CSS, provided that a chapter on electromagnetic interferences was included in the document (eventually by referring directly to relevant paragraphs of SSG-34 and SSG-39).

4. NSGC DOCUMENTS FOR CLEARANCE

4.1. NST048 Draft Implementing Guide: Security of Radioactive Material in Use and Storage and of Associated Facilities

Ms. C. George (NSNS) introduced the document to the participants. Five consultancy meetings and one technical meeting took place to develop this document. The structure follows that of NSS14, resuming the content of NSS11 when relevant. This document covers a very large scope (sealed sources or unsealed sources, nuclear material, radioactive waste at all steps of the life of nuclear installations). To be noted that, for nuclear material, the recommendations of NSS13 may also be applicable. The main topics discussed at NSGC were presented. Prior to the NUSSC Meeting, no comment was received.

⇒ NUSSC cleared NST048 for submission to Member States.

4.2. NST020 Implementing Guide: Sustaining a Nuclear Security Regime

NST020 was introduced by Ms. R. Evans (NSNS). This document presents eight national objectives (related to the organization of the State and the regulatory body) and seven operational objectives (related more directly to holders of nuclear material). RASSC, WASSC and NSGC approved the document. Prior to the NUSSC Meeting, no comment was received.

⇒ NUSSC cleared NST020 for publication.
5. MISCELLANEOUS

5.1. Update on the Establishment of the Emergency Preparedness and Response Standards Committee (EPReSC)

The IAEA has recently created a new review committee on the safety standards: the Emergency Preparedness and Response Standards Committee (EPReSC). Ann Heinrich (US-DOE) chairs this committee. 56 Member States and 11 international organizations have designated 105 representatives to the committee. The first meeting of this committee took place from 30 November to 2 December 2015, largely addressing working methods and upcoming activities.

EPReSC developed operating guidelines, considering the terms of reference of EPReSC (common to those of other review committees) as well as the activities previously conducted within the EPR Expert Group.

To deal with documents under development, in particular to determine those to be submitted to EPReSC for approval, the IAEA identified safety standards and publications of the security series that will be reviewed by EPReSC. Further, the IAEA and EPReSC agreed that the documents at the end of the development process would not be reviewed by EPReSC.

Thus, the Coordination Committee of the IAEA considers that the following documents should be reviewed by EPReSC:

- DS449: Format and content of the safety analysis report for nuclear power plants (Step 4);
- DS472: Organization, management and staffing of a regulatory body (Step 8);
- DS473: Regulatory body functions and processes (Step 8);
- DS478: Safety of nuclear fuel cycle facilities (Step 8);
- DS479: Operating experience feedback for nuclear installation (Step 7);
- DS483: Severe accident management programme for nuclear power plants (Step 8);
- DS484: Site evaluation for nuclear installations (Step 4);
- DS486: Establishing the safety infrastructure for a nuclear power programme (rev. 1) (Step 7);
- DS491: Deterministic safety analysis for nuclear power plants, Rev. 1 (Step 4);
- DS492: Human factors engineering in nuclear power plants (Step 4);
- DS494: Protection against internal hazards in the design of nuclear power plants (Step 3);
- DS434: Radiation safety of Radioisotope production facility (Step 4);
- DS470: Radiation safety of radiation sources used in research and education (Step 7);
- DS471: Radiation safety of X-ray generators and radiation sources used for inspection purposes and for non-medical imaging (Step 7);
- DS468: Remediation for areas with residual radioactive material (Step 5);
- DS489: Storage of spent nuclear fuel (Step 4);
- DS469: Planning and preparing for response to transport events involving radioactive material (Step 4);
- DS495: Regulation for the safe transport of radioactive material (Step 3);
- DS474: Draft Safety Guide on Arrangements for the Termination of a Nuclear or Radiological Emergency (Step 5) – EPReSC lead;
- DS475: Arrangements for Public Communications in Preparedness and Response to a Nuclear or Radiological Emergency (Step 5) – EPReSC lead.
This list was submitted to the Interface Group for validation. The IAEA emphasized that a number of documents were being developed under the lead of NUSSC.

5.2. NST036 Draft Technical Guidance: Computer Security of I&C Systems at Nuclear Facilities

The development of this document started mid-2012. Five consultancy meetings and one technical meeting were organized. Within the IAEA, the team in charge of the development of this document worked in close collaboration with the officers working on DS431 (I&C systems for NPP). The consultation of Member States gave rise to nearly 340 comments, the two thirds of which were accepted. NSGC approved the publication of NST036.

The IAEA stressed the modification inserted in paragraph 3.48:

3.48. If there is a conflict between safety and security, then design considerations taken to assure safety should be maintained provided that a compatible solution (with safety) to ensure security is pursued. **Compensatory computer security measures should be implemented to reduce the risk to an acceptable level and be supported by a complete justification and security risk analysis.** The implemented measures should not rely solely upon administrative controls for an extended period. The absence of a security solution should never be accepted and may only be considered on a strict case by case basis and if supported by a complete justification and security risk analysis.

This paragraph echoes paragraph 7.103 of SSG-39 (DS431): “**Neither the operation nor the failure of any computer security feature should adversely affect the ability of a system to perform its safety function. If there is a conflict between safety and security, then design considerations taken to assure safety should be maintained provided that a solution addressing the security risks is pursued. The acceptance of the absence of a security solution is strongly discouraged and may only be considered on a strict case by case basis and if supported by a complete justification and security risk analysis.**”

5.3. Information on the TECDOC: Considerations on the Application of the IAEA Safety Requirements for Design of NPPs

Mr. J. Yllera (NSNI) informed the NUSSC Members that the IAEA had continued to develop the TECDOC gathering elements of understanding of SSR-2/1, i.e.:

- Plant States considered in the design (for reactor and SFP);
- Design Extension Conditions (DEC) without and with fuel damage;
- Design basis of structures, system and components;
- Defence-in-depth (DiD) strategy for new plants;
- Independence of the levels of DiD and prevention of common cause failures;
- Concept of “practical elimination”;
- Margins and cliff-edge effects;
- Account for external hazards (hazards exceeding the input from site evaluation);
- Use of mobile sources of electric power and coolant; and
- Reliability of the heat transfer to the ultimate heat sink.
Mr. J. Yllera reminded the participants of the various meetings, consultations and information which took place to make progress in the drafting of the document.

The previous NUSSC Meeting was followed by an informal session, open to any volunteer from NUSSC, on the TECDOC controversial topics. This meeting allowed finding a consensual way to deal with these matters, sometimes at the expense of multiple options. Thus, the terms “plant design envelope” were selected and two options were introduced for the definition of levels of DiD in order to handle the absence of consensus on the DEC without core meltdown.

![Diagram of Plant Design Envelope](image)

<table>
<thead>
<tr>
<th>Level of defence</th>
<th>Approach 1</th>
<th>Essential design means</th>
<th>Essential operational means</th>
<th>Approach 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level 1</strong></td>
<td>Prevention of abnormal operation and failures</td>
<td>Conservative design and high quality in construction of normal operation systems, including monitoring and control systems</td>
<td>Operational rules and normal operating procedures</td>
<td><strong>Level 1</strong></td>
</tr>
<tr>
<td><strong>Level 2</strong></td>
<td>Control of abnormal operation and detection of failures</td>
<td>Limitation and protection systems and other surveillance features</td>
<td>Abnormal operating procedures/emergency operating procedures</td>
<td><strong>Level 2</strong></td>
</tr>
<tr>
<td><strong>3a</strong></td>
<td>Control of design basis accidents (postulated single initiating events)</td>
<td>Engineered safety features (safety systems)</td>
<td>Emergency operating procedures</td>
<td><strong>Level 3</strong></td>
</tr>
<tr>
<td><strong>3b</strong></td>
<td>Control of design extension conditions to prevent core melt</td>
<td>Safety features for design extension conditions without core melt</td>
<td>Emergency operating procedures</td>
<td>4a</td>
</tr>
<tr>
<td><strong>Level 4</strong></td>
<td>Control of design extension conditions to mitigate the consequences of severe accidents</td>
<td>Safety features for design extension conditions with core melt. Technical Support Centre</td>
<td>Complementary emergency operating procedures/ severe accident management guidelines</td>
<td><strong>Level 4</strong></td>
</tr>
<tr>
<td><strong>Level 5</strong></td>
<td>Mitigation of radiological consequences of significant releases of radioactive materials</td>
<td>On-site and off-site emergency response facilities</td>
<td>On-site and off-site emergency plans</td>
<td><strong>Level 5</strong></td>
</tr>
</tbody>
</table>
Since then, the IAEA has finalized the drafting of the TECDOC. The document is currently subject to proofreading by the Publication Committee.

⇒ NUSSC would appreciate the posting of the last version of the TECDOC – as sent to the Publication Committee – on the website of NUSSC.

⇒ For the next NUSSC Meeting, the members/observers are invited to think about NUSSC contribution to progress on consensus on the levels of DiD for new nuclear power plants.

5.4. ENISS Letter on the Safety and Security Glossaries

A representative of ENISS recalled that ENISS was an organization created in 2005 and currently composed of 16 European operators of nuclear power plants. ENISS recently created a task force on nuclear security, including for participating actively in the work of NSGC. This task force reviewed the 2007 Safety Glossary and the draft Security Glossary of the IAEA. It concluded that:

- 20 to 30% of the terms of the security glossary could be found in the safety glossary;
- Some words had completely different meanings in both glossaries (for example, the concept of DiD);
- There are cross-references between the glossaries, but sometimes with different terms or meanings;
- Some words should be defined.

Thus, ENISS wrote a letter to the IAEA and to the NUSSC Chairman to emphasize these difficulties and to suggest the IAEA to develop a unique glossary of terms of nuclear safety and security. This idea is linked to one of the recommendations contemplated by CSS in its end-of-term report (“progress on a common glossary”).

The IAEA reminded that the glossary was only putting together terms already defined (in safety standards or security publications) and that a sub-group of NSGC was specifically working on the security glossary.

Several NUSSC Members supported the need to make progress towards a common glossary. Work is also undertaken within the International Organization for Standardization to update the terminology.

⇒ NUSSC invited ENISS to transmit to the IAEA its detailed assessment of the consistency between the two glossaries. ENISS accepted.

⇒ NUSSC supported the idea of a common glossary for nuclear safety and security and invited the IAEA to work towards this goal, in cooperation with NSGC, SSCs as well as CSS.

6. CLOSURE OF THE MEETING
6.1. List of Actions for the 40th NUSSC Meeting

The List of Actions for the 40th NUSSC Meeting was introduced by Mr. Svab to the audience. The NUSSC Members did not comment on the list and approved it. The list was attached to this report as an annex (Annex II).

6.2. Conclusions

The meeting was closed by Mr. G. Rzentkowski and Mr. F. Feron. All the agenda items were addressed. An important part of the discussions focused on DS456 and a consensus was reached. The actions decided at the 40th NUSSC Meeting are intended to be posted on the website of the IAEA. The dates of the next NUSSC Meetings will be:

- 41st NUSSC Meeting: 20-24 June 2016;
- 42nd NUSSC Meeting: 28 November 2016 – 2 December 2016. During this week, the EPReSC and WASSC Meetings will also be held.
The discussions held on the drafts of Safety Standards, Technical Guidance and TECDOCs at the previous NUSSC Meetings

N2.1. DS456 Draft Safety Requirements: Leadership and Management for Safety

- 37th NUSSC Meeting Report:

A few NUSSC Members were wondering why this document was not on the agenda. The Secretariat explained that the Coordination Committee of the IAEA considered that this document could not be presented at this meeting. It will be presented at the next NUSSC Meeting at the end of 2014.

- 38th NUSSC Meeting Report:

The document was presented to the NUSSC members by Ms. H. Rycraft. Although the update of GS-R-3 started prior to DS462 and before the consultation of Member States – which was taking place at the same time as the ones relating to DS462 and DS457, approved by CSS – the revised version of DS456, taking into account the comments received from Member States, had not been submitted to the approval of the review committees. During the consultation, nearly 500 comments were received by the IAEA and a consultancy meeting took place in February 2014 to decide on the actions to be taken; 2/3 of the comments were accepted.

A new version of the document, including the accepted comments, was presented to the Coordination Committee of the IAEA, but was not endorsed. The main reasons for such refusal were:

- The responsibility for safety;
- Redundancies in the document; and
- Insufficient consideration of some lessons learned from the Fukushima Daiichi accident.

At this stage, the IAEA exchanged views with the main States which issued comments and consideration was given to requesting informal comments from the review committees at the beginning of 2015. This would allow the IAEA to improve the document and prepare a better version for the formal consultation of the review committees at the beginning of summer 2015.

 NUSSC requested DS456 to be placed on the agenda of the next NUSSC meeting, either to approve the submission of the document to CSS, or to discuss the topics in respect of which there was no consensus.

- 39th NUSSC Meeting Report:

Ms H. Rycraft (NSNI) introduced DS456 to the audience. The DPP was approved at the end of 2011. The consultation of Member States took place at the end of 2013 and gave rise to a number of comments. Two consultancy meetings were organized in order to rework DS456. In fine, the IAEA extensively redrafted the document. Therefore, the IAEA did not made available to the SSCs a table summarizing the comments received from Member States and the actions to be taken on.

Prior to the meeting, more than 350 comments were received and two-thirds of them were accepted. At the beginning of the meeting, and following the refusal of RASSC to approve the document, the IAEA stressed that DS456 was introduced for information but not for approval. The IAEA stated that a table showing links between GS-R-3 and DS456 will be prepared for the next meetings of the SSCs. The IAEA insisted on the importance of a graded approach and on the fact that the requirements included in GS-R-3 would not be removed. Two days prior to the meeting, an updated version of
DS456 was posted on the website of the IAEA. Several NUSSC and WASSC Members complained about this delay.

During the meeting, the following points were addressed:

- The real possibility to apply some requirements to small organizations. Several participants were concerned about the scope of DS456 and the relevance of this scope. The IAEA considered that medical exposure, which is the main source of public exposure, should not be excluded from the scope. The structure of the document could potentially be changed to distinguish the requirements applicable to all kinds of installations and those applicable to large installations;

- The point in conducting a new consultation of Member States given the number of changes in the version submitted for consultation to the Member States;

- The possibility of creating a NUSSC/ WASSC working group on DS456 in order to facilitate consensus on the document.

The different points of view expressed lead the IAEA to redraft the document with the support of NUSSC and WASSC Members. In order to have a new version available at the time of the next meetings of the SSCs, two planning scenarios were discussed. Following discussions, the following schedule has been adopted:
- 8 July 2015: designation of volunteers from NUSSC and WASSC;
- July/August: provision of a comparative evaluation between GS-R-3 and DS456 by the IAEA;
- End of August 2015: comments from NUSSC and WASSC on the last version of DS456 (16 June 2015);
- 18 September: provision of the comments received to the group of experts and suggestion on actions to be taken on these comments;
- 5 – 7 October 2015: meeting of a Working Group;
- 26 October 2015: posting of the new version of DS456 on the website of the IAEA;
- November 2015: review for approval during the meetings of the SSCs.

The Scientific Secretary of RASSC underlined that, given the fact that the duration for the review of the “future” version of DS456 would be only one week, there was no guarantee that RASSC would approve the document.

NUSSC and WASSC Members requested the following:

- NUSSC and WASSC noted that the IAEA would continue developing DS456 and confirmed that the document could not be submitted to CSS at this stage;
- NUSSC and WASSC will transmit their comments on the version of DS456 posted online on 26 June 2015 to the IAEA, by 28 August 2015. NUSSC and WASSC noted that the IAEA will ask, for the same date, comments from RASSC, TRANSSC and NSGC;
- NUSSC and WASSC noted that the IAEA will provide a comparative table of GS-R-3 and DS456 at the end of July 2015;
- NUSSC and WASSC decided to create a working group to address the comments received with the IAEA. Members of RASSC, TRANSSC and NSGC were welcome to contribute to this process.
Separately from WASSC, NUSSC had further discussions on the following topics:

- The graded approach is related to the concrete implementation of a requirement, and not to the applicability of this requirement. Therefore, the requirement must be written in a way conducive to an implementation proportionate to the challenges;

- Will small businesses be able to apply Requirement 7 (definition and implementation of an integrated management system)? For nuclear operators, the necessity to manage jointly safety and security requirements has become a topic where the management system must be better integrated;

- The requirements of DS456 are probably applicable to organizations of a certain size, with more than 10 persons. The difficulty seems to concern very small organizations/businesses, i.e. a few people, or even one person. An Annex could be included to explain how to apply the requirements. A similar approach could be consistent to address the case of organizations and businesses where nuclear activities are minor;

- The interfaces between management system, safety leadership and safety culture;

- The differences between the responsibilities of the operator (in a broad sense) and the management of the operator;

- The interfaces and synergies/differences between different evaluations (self-assessments, independent evaluations);

- The terms “management for safety” (Principle 3 of SF-1 uses “leadership and management for safety”) and their compatibility with the concept of integrated management system. This inconsistency, clear but groundless according to the IAEA, could be explained at the front of DS456.

**N2.2. DS476 Draft Safety Requirements: Safety of Research Reactors**

- **38th NUSSC Meeting Report:**

The document was presented to the Committees by Mr D. Sears. The DPP was approved at the beginning of 2014 and it aims at updating NS-R-4 (2005). A first draft was prepared during two consultancy meetings. Prior to the joint session of NUSSC, RASSC and WASSC, nearly 647 comments were received. Two thirds were widely accepted by the Secretariat. Shortly before the meeting, the table introducing the actions taken on the comments received was posted on the Committees’ website. NSGC gave its consent for submission of the document to Member States’ consultation.

During the joint session of NUSSC, RASSC and WASSC, the discussions focused on:

- Redundancies between DS476 and requirements already outlined in GS-R-3 and NS-R-3. The Secretariat pointed out that new requirements were not added and the text showed to the reader why the requirements were important. It led to a few more pages only. The Committee members considered that the current situation at this stage of the development of DS476 was reasonable;

- The content of the safety report and the safety analysis: the Secretariat emphasized that several requirements were dealing with the content of safety reports on research reactors because of experience feedback from missions;

- The requirements which were only concerned with major modifications of the installation, and not all modifications (paragraphs 6.114 and 6.115). The Secretariat explained that for research reactors,
experiments or modifications are categorized into safety classes depending on whether they have a major effect on safety, significant effect on safety, minor effect on safety or no effect on safety. The text refers to the categorization process;
The consistency between requirements stated in DS476 and those stated in SSR-2/1 and SSR-2/2, when specificities of research reactors do not justify a distinction;

- The fact that some paragraphs in DS476 would rather be a matter for a safety guide. The Secretariat indicated that guidance was removed in the resolution of comments;
- The consideration of design extension conditions (DEC) (Requirement 22). To date, only a few, or even no reactor, possess an analysis of DEC. Paragraph 6.68 is a subject of controversy (“The means of confinement shall be able to withstand extreme scenarios that result in unacceptable radiological release”), as it seems surprising that a regulatory body would accept unacceptable consequences. The Secretariat suggested the deletion of paragraph 6.68. Moreover, some paragraphs should rather be covered in a safety guide, as, should they be similar to what was provided for regarding nuclear power plants, they relate to new practices.
- Some requirements going beyond SSR-2/2, for example in paragraph 7.5: the paragraph will be modified so that authorizations to engage in the position of reactor manager, shift supervisors or reactor operators could be issued by the regulatory body or the operating organization;
- The consistency of DS476 with other requirements on decommissioning and waste management. The IAEA noted that DS476 only addresses preparation for decommissioning and not decommissioning itself. The IAEA also stressed that paragraph 8.3(b) was deleted. The IAEA pointed out that GSR Part 5 and GSR Part 6 also apply to research reactors, without the need for a reminder.

Action: The Secretariat to modify DS476 in line with the comments received and to submit to Member States for comment.

N2.3. DS432 Draft Safety Guide: Radiation Protection of the Public and Protection of the Environment

- 38th NUSSC Meeting Report:

Mr T. Boal introduced the document, which is one of the three general safety guides supporting implementation of the BSS. The draft safety guide applies to all facilities and all activities and is intended to clarify the principles of protection of members of the public and the environment against radiation exposure in planned, emergency and existing exposure situations. The guidance is intended to underpin the development of facility and activity specific Safety Guides and other relevant documents dealing with this area of protection to ensure a consistent approach. The text was developed in cooperation with UNEP, which participated in most of the Consultant Meetings and is a potential cosponsor.

DS432 was posted on the Committees’ website on 1 October 2014 and 126 comments were received from six Member States and two International Organizations. Most of the comments were of an editorial nature and were accepted. Comments that were not accepted related to changing text quoted from the BSS and to deleting Appendix 1. Mr Boal noted that additional comments relating to terms used in the section on protection of the environment may require further review by the Secretariat, depending in part on the discussion on the draft safety guides A General Framework for Radiological Environmental Impact Assessment and Protection of the Public (DS427) and Regulatory Control of Radioactive Discharges to the Environment from Facilities and Activities (DS442) (see agenda items NRW6.3 and NRW6.4).

The Committees considered that the text on radiation protection of the environment should be revised to be in line with DS427. There was also support for modifying the text in order to clarify the
relationship between the regulatory body and the operator/licensee in the setting of dose constraints and dose limits for the public in planned exposure situations. The importance of self-help processes in the management of existing exposure situations also needs greater emphasis.

There were some concerns that criteria for protection of the environment were being introduced in DS432 without being firmly grounded in the BSS. UNEP welcomed the attention being given by the Committees to this issue and noted that the inclusion of requirements on protection of the environment in the BSS was an important development. The Committees agreed with UNEP that guidance on how the ambitions in the BSS should be interpreted was welcome, recognizing that in due course the BSS requirements could be strengthened.

Overall, the Committees considered that the document had a number of repetitions and unresolved issues. As such, it required further work, in particular to provide greater detail and make it fully consistent with the other two documents dealing with protection of the environment. Nevertheless, the Committees supported submitting the document to Member States for comment in order to get a wider range of views on the content and advised that all three documents – DS427, DS432 and DS442 – should only be submitted to Member States jointly.

A separate informal discussion took place between the three Chairs, the three Scientific Secretaries and the technical officers to discuss the further development of DS427, DS432 and DS442. It was proposed that all three documents would be reviewed and updated in line with comments received and be provided to the Chairmen of NUSSC, RASSC and WASSC for clearance prior to submission to Member States. In order for the three draft safety guides to be available for consideration by the Committees at their meeting in November 2014, the drafts would need to be cleared by the Chairmen in early March 2015. This was agreed by the Committees.

**Action:** The Secretariat to revise DS432 in line with the comments received and to make it fully consistent with both DS427 and DS442. Following revision, the document should be provided to the Chairmen of NUSSC, RASSC and WASSC for clearance prior to submission to Member States for comment.

### N2.4. DS427 Draft Safety Guide: General Framework for Prospective Radiological Environmental Impact Assessment and Protection of the Public

- **37th NUSSC Meeting Report:**

This document was presented to the audience by D. Telleria, technical officer for this document. The DPP for this guide was approved in 2009. Delay in drafting was mostly justified because BSS were published in 2011 and last relevant publications of the International Commission on Radiological Protection (ICRP) were published in 2014. WASSC is the leading committee. A first version of the draft was circulated at the end of 2013 to the review committees. Given the number of comments received and the inputs from RASCC and WASSC, the Secretariat decided to continue the drafting before a new consultation of the review committees.

During the previous NUSSC Meeting, NUSSC expressed doubts on the inclusion of recommendations as to protecting the environment and addressing potential exposure. It was suggested that RASSC/WASSC re-examined the scope of the guide. RASSC/WASSC’s current view is that these topics, even though difficult, should be kept at this stage.

A new draft version of the guide was circulated in April 2014 in preparation for the review committees meetings. More than 250 comments were issued (37% editorial, 54% doable by the Secretariat and 6% critical). The technical officer did not suggest any specific treatment for those comments in advance to the meeting (i.e. no comment resolution table was uploaded on the SSC websites) as the document was not for approval but only for discussion. Recognizing that some of the
comments were “critical”, the technical officer expected guidance from the review committees on the way forward.

The technical officer, as well as RASSC and WASSC, deemed reasonable to include recommendations on the assessment of the impact on fauna and flora, especially because the ICRP developed an approach that the Secretariat considered technically sound, practical and consistent with the approach to assess impact on humans. As regards potential exposure, topic addressed in GSR Part 3 (2011), they believe it is necessary to consider the interfaces between emergency preparedness or response and safety assessment (this was discussed and agreed with IEC previous to the meeting). RASSC and WASSC acknowledged that the definition of the source term is a topic of nuclear safety, to be addressed by safety analysts and considered by NUSSC. However, the scenarios of exposure and the use of criteria for potential exposures is a radioprotection issue.

The Secretariat acknowledged that the scope of the guide was broad and was dealing with a topic, at least partially, already addressed in national, or even international, binding regulations. The technical officer favored, hence, a “panoramic” and “flexible” guide, and this was endorsed by WASSC and RASSC. The technical officer also considered the suggestion by WASSC to modify the guide title (A general framework for radiological environment impact assessment and protection of the public). Furthermore, the technical officer reminded the participants of the elaboration of DS432 (Radiation Protection of the Public and Protection of the Environment) and DS442 (Regulatory Control of Radioactive Releases to the Environment from Facilities and Activities), which is being done in a consistent manner with DS427.

During the NUSSC Meeting, the discussions focused on:

- The fact that WASSC, and not RASSC, was the leading committee. The technical officer emphasized that WASSC is normally covering dischargeable wastes and that RASSC has the lead of DS432, from which DS427 will be elaborated;
- Concerns on addressing potential exposure;
- How ALARA principle is put forward in the draft;
- The possible “panoramic” style, recognizing various approaches between Member States;
- The difficulty of addressing in the same guide potential exposure associated with a wide scope of facilities and activities;
- Taking into account long-term impacts of waste disposal facilities in the guide. The Secretariat indicated that those installations were out of scope and this is clearly indicated in the scope of the guide.

⇒ NUSSC noted that the technical officer did not suggest, prior to the meeting, dealing with the comments issued for the DS427 project.

⇒ NUSSC confirmed the reservations it had previously expressed.

⇒ NUSSC was not in favor of a “panoramic” guide opening to many options (see the results achieved on DS431 which started with a panoramic style). A panoramic document would better fit as a Tecdoc, not as a safety standard.

- 38th NUSSC Meeting Report:

Mr D. Telleria introduced the draft Safety Guide DS427, the aim of which is to present a general framework for prospective radiological environmental impact assessment (REIA) and protection of the public. This document, together with DS432 and DS442, is part of the set of Safety Guides on protection of the public and the environment. The draft document provides recommendations and
guidance to perform the above mentioned assessments to estimate and control the radiological effects on the public and on the environment using defined criteria.

Mr Telleria noted the objectives of his intervention, focused to present the consideration of the comments on DS427 (November 2014 version) by the Secretariat, to discuss the essential comments not accepted by the Secretariat and to seek the advice of the SSCs on those matters, and to discuss the way forward.

The comments received on this Safety Guide (April 2014 version) were 269 from RASSC, WASSC and NUSSC, of which 198 comments were accepted and provided useful input to the version distributed for the SSCs meeting in November 2014.

The version dated November 2014 received 290 comments from SSC members, and 70% of them were accepted. The Technical Officer noted that the consideration of these comments will considerably improve the document. The main types of comments were on:

- Increased scope definition;
- Improved interrelation with other Safety Standards;
- Increase simplicity/clarity to the sections on potential exposures and flora and fauna;
- Reduction of superfluous information;
- Less redundancy; and
- Terminology, editorial and style improvement.

Mr Williams, Chair of WASSC, noted that the reason for having separate discussions with WASSC on this document was because of the complexity of the topic, and it was considered important to discuss topics in detail with WASSC, and not spend half a day of discussion on these documents at the joint sessions. The above-mentioned issues were clarified and the WASSC views were not intended to override the decision of the three committees regarding the changes to be introduced to the documents.

The SSCs members recognized that the document has been considerably improved, notwithstanding this, a few remaining issues still needed to be addressed. The Committees discussed the following topics:

- Structure of the document to denote differences between small and large facilities, and preliminary versus detailed Safety Assessments, as those differences might be seen as non-consistencies;
- Relationship between optimization of radiation protection measures and REIA;
- Selection of the Representative Person;
- Application of graded approaches;
- Improve wording on the process of Safety Assessment supporting licensing decisions.

The Committees concluded that it was important to keep the document at a higher level to give guidance, but not solutions to the problems, as this would imply a standard of prescriptive nature, creating further problems. It was also recognized there was a need to keep flexibility, which would imply incorporating improvements to the wording. Criteria related to environmental protection were to be transferred to an annex.

Consistent with the decision taken on DS432, it was agreed that DS427 would be reviewed and updated in line with comments received and be provided to the Chairmen of NUSSC, RASSC and WASSC for clearance prior to submission to Member States. In order for the three draft safety guides to be available for consideration by the Committees at their meeting in November 2014, the drafts would need to be cleared by the Chairmen in early March 2015.
**Action:** The Secretariat to revise DS427 in line with the comments received and to make it fully consistent with both DS432 and DS442. Following revision, the document should be provided to the Chairmen of NUSSC, RASSC and WASSC for clearance prior to submission to Member States for comment.

**N2.5. DS442 Draft Safety Guide: Regulatory Control of Radioactive Discharges to the Environment**

- 38th NUSSC Meeting Report:

Mr Telleria introduced the draft Safety Guide on Regulatory Control of Radioactive Discharges to the Environment from Facilities and Activities for discussion prior to approval by the SSCs for submission to the CSS for endorsement for publication. This document is a revision of the existing safety guide WS-G2.3, on Regulatory Control of Radioactive Discharges to the Environment.

Mr Telleria informed the Committees that the objective of the presentation was to present the consideration given by the Secretariat to the comments from SSCs members to DS442 (November 2014 version), to discuss the main technical issues and the next steps.

221 comments were received (April 2014 version) from RASSC, WASSC and NUSSC, of which 209 comments (90%) were accepted and nine were being considered. There were no essential comments and approximately 40% of the comments were of an editorial nature and 60% for clarification purposes.

The technical issues commented on concerned:

- The contribution of Tritium and C-14 to the effective committed dose;
- Ranges of dose constraint, clarification of constraint versus optimization;
- Use of the concept of representative person, as part of the methodology versus public protection;
- Dose limit to the lens of the eye of members of the public;
- Releases during and after decommissioning, new authorization for discharges during decommissioning;
- Discharges from NORM facilities;
- Argumentation on the justification of releases;
- Avoidance of quoting the BSS, just reference it, and
- References to other Safety Guides.

Mr Telleria then went on to discuss the need and options for setting a range for public dose constraints, noting that no specific numerical values are given in the International BSS. The possible range of values was from 10 μSv (below which exemption from regulatory control applies) up to 1 mSv (the dose limit for members of the public).

Following extensive discussion, the Committees agreed that public dose constraints needed to be established on a case-by-case basis and the safety guide should discuss the criteria to be applied in establishing numerical values. A value of 300 μSv should not be considered as appropriate for all facilities. Specific mention was made of the need to address multiple installation sites and mining and milling activities, for which the appropriate value of public dose constraint might be very different to that for a NPP.

The Committees concluded that, before submission to Member States for comment, DS442 should be improved to better address NORM, tritium and carbon-14 discharges, and the establishment and use
of dose constraints. Consistent with the decision taken on DS432, it was agreed that DS442 would be reviewed and updated in line with comments received and be provided to the Chairmen of NUSSC, RASSC and WASSC for clearance prior to submission to Member States. In order for the three draft safety guides to be available for consideration by the Committees at their meeting in November 2014, the drafts would need to be cleared by the Chairmen in early March 2015.

**Action:** The Secretariat to revise DS442 in line with the comments received and to make it fully consistent with both DS432 and DS427. Following revision, the document should be provided to the Chairmen of NUSSC, RASSC and WASSC for clearance prior to submission to Member States for comment.


- **38th NUSSC Meeting Report:**

  Mr V. Ljubenov (WES-NSRW) introduced the draft Safety Guide on decommissioning of nuclear installations, for approval for submission to Member States for comments. This document is a revision and consolidation of two previous Safety Guides on decommissioning of nuclear power plants and research reactors (WS-G-2.1) and on decommissioning of nuclear fuel cycle facilities (WS-G-2.4).

  Mr Ljubenov referred briefly to the history of development of the draft and to the challenges while accommodating widely varying types of facilities, site configuration, and safety related issues, technological and radiological conditions. Specifically, the challenges can be summarized as:

  - To provide guidance to different type of facilities: fuel cycle facilities, research reactors and power reactors;
  - To consider single facilities as well as large scale multi-facility sites;
  - Different decommissioning strategies;
  - Criticality concerns for some fuel cycle facilities;
  - Different types (activation products, alpha contamination, airborne or ground water contamination) and extent of contamination in and around facilities; and
  - Aspects of decommissioning after an accident.

  The structure of the safety Guides follows the structure of GSR Part 6, and six Annexes, with examples for the content of a final decommissioning plan including supporting documents, content of the final decommissioning report, contents of the final radiological survey report, on considerations for Safety Assessment for decommissioning of nuclear installations and one annex with bibliography.

  This first draft sent for the review of the SSC’s received 321 comments from members of NUSSC, NSGC and WASSC, and observer organizations. From them, 67 % were accepted, 13 % accepted with modifications and 20 % rejected.

  Mr Ljubenov then went on providing information on the comments disposition, main reasons for rejecting comments or disagreeing with some proposals. He highlighted the resolution of WASSC34 (November 2012), when the title was discussed, with the aim to reflect better the scope of the document. At that time, the decision of WASSC was to entitle the document “Decommissioning of Nuclear Installations”, as encompasses both reactors and nuclear fuel cycle facilities.

  After one of the comments received for this meeting and to ensure all the intended NFCF are covered by the draft document, the title of the document will be changed to “Decommissioning of Nuclear Power Plants, Research Reactors and Other Nuclear Fuel Cycle facilities” and one paragraph will be added to the scope to specify the types of nuclear facilities that are included in the scope of this Safety Guide, as follows:
“uranium conversion plants, uranium enrichment plants, nuclear fuel fabrication plants, research reactors including subcritical and critical assemblies, nuclear power plants, facilities for storage of spent fuel, reprocessing facilities and facilities for predisposal management of radioactive waste. Uranium and thorium mines and facilities for disposal of radioactive waste are out of the scope, as they are subject to closure and not to decommissioning. Surface processing facilities for mining and milling of uranium and thorium are to be decommissioning, and all the considerations in this Safety Guide are applicable to this type of facilities. For radioactive waste disposal facilities this Safety Guide provides information relevant for decommissioning of support infrastructure, i.e. parts of the facilities other than the disposal section itself.”

In addition, throughout the document, the term “nuclear installation” will be replaced by “facilities”, in the restricted sense and indicated above, and denoted in the footnote one of the document.

Finally, Mr Ljubenov underlined the fact that the document is developed primarily for installations with a normal operational history which was followed by a planned shutdown. However, many of the considerations are also applicable to decommissioning after an accident.

WASSC and NUSSC members thanked the clarity of the document and the presentation. SSCs members commented the following:

- **Management systems for decommissioning:** the current text is good, but seems too large for a specific SG. Notwithstanding this, it was recognized that specificities does exist, and that leaving the text to be included into another SG dealing with MS seems not appropriate. In addition, it was noted that one of the major challenges is that contractors are continuing changing during the project implementation, and this needs proper registration. Then SSCs members concluded that the text should be comprehensive, including up to the stage of decommissioned sites.

- **Decommissioning following an accident:** One committee member recalled the WG of WASSC meeting held in November 2013 recommending that damaged reactors should be included into the scope of DS452. In response, it was highlighted that this subject was discussed at an experts meeting under the NSAP, and the results published as an NE series document (briefing on this document was provided during WASSC37). Discussion went on about the treatment of waste after decommissioning a damaged reactor: if it should be included or not in this draft SG. Finally, SSC’s members decided that this is a matter of RWM, and will be addressed by a TM to be held in January 2015.

\[ NUSSC and WASSC gave their approval for changing the title of DS452 and for consulting the Member States. \]

N2.7. **DS486 Draft Safety Guide: Establishing the Safety Infrastructure for a Nuclear Power Programme**

- **37th NUSSC Meeting Report:**

The document was presented to the NUSSC Members by D. Graves. SSG-16 was published in 2011 and is widely used in the embarking countries. The modifications recently implemented in the safety requirements (GSR Part 3) and those that are being prepared following the Fukushima Daiichi accident (DS462) or for other reasons (DS456) deserve to be taken into account in SSG-16, which is why this DPP was prepared.
Prior to the NUSSC Meeting, about 30 comments were issued. The table presenting the actions taken on these comments, as well as an updated DPP, was posted on the website of the IAEA a short while before the NUSSC Meeting. The Secretariat presented two rejected comments.

⇒ NUSSC approved the DPP.

⇒ NUSSC stressed the usefulness of the table prepared by the IAEA for the identification of the development of safety requirements related to DS462 which must be included in DS486. This table deserves to be completed with progressive developments of other safety requirements (DS456, DS457).

N4.2. NST020 Implementing Guide: Sustaining a Nuclear Security Regime

- 38th NUSSC Meeting Report:

Ms R. Evans gave an explanation of the document. The objective of this document is to provide guidance to Member States, competent authorities authorized persons and other organizations with nuclear security responsibilities on the principles and actions to sustain a nuclear security regime. Sustainability is the set of principles and implementing actions incorporated into the nuclear security regime that support its continuing effectiveness. The DPP was approved in 2013. Prior to the joint meeting of NUSSC, RASSC, WASSC and the NSGC meeting, about 30 comments were received and most of them were accepted by the Secretariat. The NSGC gave its consent for the document to be submitted to Member States for comment.

Action: The Secretariat to submit NST020 to Member States for comment.

N5.2. NST036 Draft Technical Guidance: Security of I&C Systems for Nuclear Facilities

- 37th NUSSC Meeting Report:

NST036 Implementing Guide: Security of Instrumentation and Control Systems at Nuclear Facilities was removed from the NUSSC agenda, as NSGC considered that the document was not ready to be submitted to the Member States for comments.

- 38th NUSSC Meeting Report:

Mr. D. Dudenhoeffer presented the document to the participants. This document is not an interface document, but a Technical Guidance (the equivalent of a safety report). The IAEA indicated that this document, initiated in 2012, was being developed in cooperation with the TO of DS431 and the Incident and Emergency Centre (IEC). Five consultancy meetings and one Technical Meeting took place to draft the document. The consultation of Member States will be held soon. The IAEA drew the attention of the audience to paragraph 3.47 regarding the interface between safety and security. The IEC had no more comments on the last version of NST036.

⇒ The NUSSC members were invited to review the document and to bring forward possible comments from Member States, according to their national processes.
35th NUSSC Meeting Report:

Mr. J. Yllera presented to the NUSSC members this draft TECDOC, under development, and provided further details on certain concepts appearing in SSR-2/1, such as "practical elimination", Design Extension Conditions (DEC), or design basis of plant equipment, etc. The development of this document by the IAEA is intended for Member States, but also to fulfil the Agency’s needs as regards the initiated revision of several safety guides.

The drafting of the TECDOC started at the same time as the revision of SSR-2/1. Three consultancy meetings were organized in that purpose. A presentation to the Senior Regulators Meeting took place in September 2014; another one to INSAG, in October 2014. A briefing session of CSS was held in September 2014. On these occasions, a few comments were made on the following topics:

- The excessive use of WENRA or EUR as reference information;
- The question of the connection between levels of defence-in-depth and condition of nuclear installations, including Design Basis Accident (DBA) and DEC;
- Paragraphs dealing with common cause failures;
- The use of non-permanent equipment for DEC;
- The levels of confidence regarding several scenarios related to practical elimination;
- The interface with the ongoing work of the Nuclear Energy Agency (which focuses on levels 3a and 3b of WENRA and not levels 4a and 4b, as the TECDOC does).

The IAEA underscored that some comments were rather related to SSR-2/1, instead of the TECDOC. The IAEA also reminded the participants of the fact that a TECDOC is not a Safety Standard; its review by the review committees and the Member States is, hence, not expected.

During the NUSSC meeting, the following issues were discussed:

- The point of the TECDOC;
- The status of the document, especially the possibility to convert it into a Safety Guide. Some of the NUSSC members considered that there might be a tendency to use the TECDOC instead of SSR-2/1 (or other safety guides), and the TECDOC might jeopardize the consensus achieved on SSR-2/1. The IAEA confirmed that it was not its intention. It was recalled that TECDOCs were sometimes the first stirrings of safety guides. The IAEA explained that, to date, it would be probably premature to develop in the short-term a guide on SSR-2/1;
- The fact that the TECDOC suggested further development of definitions in the IAEA Safety Glossary or SSR-2/1;
- The comparison of levels of defence-in-depth with the approach adopted by WENRA;
- The point in having more time available to make comments and making them public on the NUSSC website or on the CSS website, for instance.

NUSSC confirmed the importance of developing this TECDOC, especially because it was allowing the documentation of some contextual elements which presided over the development of SSR-2/1. NUSSC emphasized that this TECDOC was not ordinary, as shown during the presentations made to INSAG or the Senior Regulators Meeting.
NUSSC reminded that this TECDOC should be fully consistent with SSR-2/1.

NUSSC wished to be able to participate in the development of this document, while acknowledging that this TECDOC did not constitute a Safety Standard. NUSSC was ready to hold a working group meeting on this matter in spring 2015. NUSSC invited the IAEA to examine how to convene such a meeting.

The NUSSC members were invited to express comments on the draft TECDOC by the end of December 2014, as indicated by CSS.

- 30th NUSSC Meeting Report:

As stated by Mr. J. Yllera (NSNI), who presented the TECDOC to the NUSSC Members, the IAEA continues the drafting of the TECDOC gathering elements of understanding or interpretation about SSR-2/1. Consultancy meetings were organized for that purpose. Moreover, following the communication of this information to the previous CSS Meeting, a few countries issued comments on the TECDOC.

The IAEA reminded the NUSSC Members of the objectives set out in the TECDOC as well as the different topics addressed in this document:

- Plant States considered in the design (for reactor and SFP);
- Design Extension Conditions without and with fuel damage;
- Design basis of structures, system and components;
- Defence-in-depth (DiD) strategy for new plants;
- Independence of the levels of DiD and prevention of common cause failures;
- Concept of “practical elimination”;
- Design margins and cliff-edge effects;
- Design for external hazards (hazards exceeding the input from site evaluation);
- Use of mobile sources of electric power and coolant; and
- Reliability of the heat transfer to the ultimate heat sink.

The IAEA underlined that, despite the consultancy meetings and other presentations (INSAG forum, CSS…), at this stage, the TECDOC did not reflect the results of a large consensus process. Only Germany, Canada, the Republic of Korea, ENISS, the United States of America, France, India and Japan had issued comments on different versions of the TECDOC, once or several times.

Some NUSSC Members requested that the above-mentioned elements of understanding or interpretation, included in the draft TECDOC, be subject to information for NUSSC Members, and, possibly, that the IAEA receive guidance from NUSSC in that respect. The issues involved are:

- The meaning of the term “design basis” for installations;
- The levels of DiD and the case of DEC without core meltdown (levels 3a/3b or 4a/4b);
- The use of mobile equipment;
- The concept of practical elimination; and
- The list of examples of DEC without core meltdown.
# ANNEX I

## AGENDA

### 40th Meeting of the Nuclear Safety Standards Committee (NUSSC)

1 – 3 December 2015, Vienna  
VIC, C Building, Meeting Room C1

**Tuesday, 1 December 2015, at 9:30 a.m. – Thursday, 3 December 2015**

## 1. GENERAL ISSUES

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</table>
| 1.1 | Opening of the Meeting | Mr G. Rzentkowski  
- Opening remarks by DIR-NSNI | DIR-NSNI  
- Opening remarks by DDG-NSS | Mr J.C. Lentijo, DDG - NSS |
| 1.2 | Chairman’s Introduction | Mr F. Feron |
| 1.3 | Adoption of the Agenda of the 40th NUSSC Meeting | NUSSC Members |
| 1.4 | Approval of the Report of the 39th NUSSC Meeting | NUSSC Members |
| 1.5 | Actions of NUSSC Meetings | Mr M. Svab |
| 1.6 | Dates of the next meetings: For approval | NUSSC Members  
41st NUSSC Meeting: 20 – 24 June 2016  
42nd NUSSC: 28 November – 2 December 2016 |
| 1.7 | Report from the previous meeting of the Chairs (November 2015) | Mr F. Feron |
| 1.8 | CSS 38th Meeting Report | Mr D. Delattre |
| 1.9 | Demonstration of the IT Platform for the Future Feedback, Review, Revision and Publication of Safety Standards and Nuclear Security Series Publications | Mr D. Delattre |
| 1.10 | Results of the review of SSG-25 and NS-G-1.5 to reflect the Vienna Declaration (information on the review of NS-G-1.7 and NS-G-1.11 will be provided under 3.2) | Mr P. Villalibre  
Mr O. Coman |
### 2. REVIEW OF IAEA SAFETY STANDARDS

<table>
<thead>
<tr>
<th></th>
<th>Draft Document Title</th>
<th>For approval</th>
<th>Responsible Officer</th>
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<tbody>
<tr>
<td>2.1</td>
<td>DS456 Draft Safety Requirements: Leadership and Management for Safety (also to RASSC, TRANSSC, WASSC and NSGC)</td>
<td>For submission to CSS</td>
<td>Mr P. Tarren</td>
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<tr>
<td>2.2</td>
<td>DS476 Draft Safety Requirements: Safety of Research Reactors (also to RASSC, TRANSSC, WASSC and NSGC)</td>
<td>For submission to CSS</td>
<td>Mr D. Sears</td>
</tr>
<tr>
<td>2.3</td>
<td>DS432 Draft Safety Guide: Radiation Protection of the Public and Protection of the Environment (also to RASSC, TRANSSC, WASSC and NSGC)</td>
<td>For submission to CSS</td>
<td>Mr T. Boal</td>
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<tr>
<td>2.4</td>
<td>DS427 Draft Safety Guide: General Framework for Prospective Radiological Environmental Impact Assessment and Protection of the Public (also to RASSC and WASSC)</td>
<td>For submission to CSS</td>
<td>Mr D. Telleria</td>
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<tr>
<td>2.5</td>
<td>DS442 Draft Safety Guide: Regulatory Control of Radioactive Discharges to the Environment (also to RASSC and WASSC)</td>
<td>For submission to CSS</td>
<td>Mr D. Telleria</td>
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<tr>
<td>2.6</td>
<td>DS452 Draft Safety Guide: Decommissioning of Nuclear Power Plants, Research Reactors and Other Nuclear Fuel Cycle Facilities (Revision of WS-G-2.1 &amp; WS-G-2.4) (also to WASSC and NSGC)</td>
<td>For submission to CSS</td>
<td>Mr V. Ljubenov</td>
</tr>
<tr>
<td>2.7</td>
<td>DS495 Draft Safety Guide: Establishing the Safety Infrastructure for a Nuclear Power Programme (also to RASSC, TRANSSC, WASSC and NSGC)</td>
<td>For submission to MS</td>
<td>Mr T. Kobetz</td>
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<tr>
<td>2.8</td>
<td>DS479 Draft Safety Guide: Operating Experience Feedback for Nuclear Installations (also to RASSC, TRANSSC, WASSC and NSGC)</td>
<td>For submission to MS</td>
<td>Mr G. Prohaska</td>
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<tr>
<td>2.9</td>
<td>Status of Safety Standards</td>
<td>For information</td>
<td>Mr M. Svab</td>
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### 3. REVIEW OF DOCUMENT PREPARATION PROFILES (DPPs) – Safety Standards

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<tr>
<th>3.1</th>
<th>Draft Document Title</th>
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<th>Responsible Officer</th>
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<tr>
<td></td>
<td>DS495 DPP Draft Safety Requirements: Regulations for the Safe Transport of Radioactive Material (Revision of SSR-6) (also to RASSC, TRANSSC, WASSC and NSGC)</td>
<td>For submission to CSS</td>
<td>Ms N. Capadona</td>
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</table>
3.2 DS494 DPP Draft Safety Guide: Protection against Internal Hazards in the Design of Nuclear Power Plants
(also to NSGC)

4. NSGC DOCUMENTS FOR CLEARANCE

4.1 NST048 Draft Implementing Guide: Security of Radioactive Material in Use and Storage and of Associated Facilities
(also to RASSC, WASSC and NSGC)

4.2 NST020 Implementing Guide: Sustaining a Nuclear Security Regime
(also to RASSC, TRANSSC, WASSC and NSGC)

5. MISCELLANEOUS

5.1 Update on the Establishment of the Emergency Preparedness and Response Standards Committee (EPReSC)

5.2 NST036 Draft Technical Guidance: Security of I&C Systems for Nuclear

5.3 Information on the TECDOC: Considerations on the Application of the IAEA Safety Requirements for Design of NPPs.

5.4 ENISS letter on the Safety and Security Glossaries

6. CLOSURE OF THE MEETING

6.1 Actions following the 40th NUSSC Meeting

6.2 Conclusions
<table>
<thead>
<tr>
<th>Meeting</th>
<th>Dates</th>
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<tbody>
<tr>
<td>39th CSS Meeting</td>
<td>4 – 8 April 2016</td>
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<td>40th CSS Meeting</td>
<td>7 – 11 November 2016</td>
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<td>9th NSGC Meeting</td>
<td>20 – 24 June 2016</td>
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<td>2nd EPreSC Meeting</td>
<td>27 June – 1 July 2016</td>
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<td>3rd EPreSC Meeting</td>
<td>28 November – 2 December 2016</td>
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<tr>
<td>41st NUSSC Meeting</td>
<td>20 – 24 June 2016</td>
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<td>42nd NUSSC Meeting</td>
<td>28 November – 2 December 2016</td>
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<td>40th RASSC Meeting</td>
<td>20 – 24 June 2016</td>
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<td>41st RASSC Meeting</td>
<td>21 – 25 November 2016</td>
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<td>32nd TRANSSC Meeting</td>
<td>13 – 17 June 2016</td>
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<td>41st WASSC Meeting</td>
<td>20 – 24 June 2016</td>
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<tr>
<td>42nd WASSC Meeting</td>
<td>28 November – 2 December 2016</td>
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# ANNEX II

## LIST OF ACTIONS FOR THE 40TH NUSSC MEETING

<table>
<thead>
<tr>
<th>Item</th>
<th>Action</th>
<th>Who</th>
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<tbody>
<tr>
<td>N2.1</td>
<td>DS456 Draft Safety Requirements: Leadership and Management for Safety</td>
<td>Secretariat</td>
<td>ASAP</td>
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<tr>
<td></td>
<td>Approved for submission to CSS, provided that the changes agreed by NUSSC are done.</td>
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<tr>
<td>N2.2</td>
<td>DS476 Draft Safety Requirements: Safety of Research Reactors</td>
<td>Secretariat</td>
<td>Christmas 2015</td>
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<td>NUSSC requested the IAEA to develop, by Christmas 2015, a table of the requirements applicable to the two sub-critical assemblies’ families (this work should be facilitated by the process provided for in paragraph 1.9 of DS476) and to add the table to the DS476.</td>
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<td>If, by the end of January 2016, a NUSSC Member considers that the document comprises inconsistencies and that new or revised requirements must be included, the document will not be transmitted to CSS and it will have to be reviewed once again by NUSSC at its next meeting.</td>
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<td>If no comment is received, the position of NUSSC will be that DS476 can be transmitted to CSS.</td>
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<tr>
<td>N2.3</td>
<td>DS432 Draft Safety Guide: Radiation Protection of the Public and Protection of the Environment</td>
<td>Secretariat</td>
<td>ASAP</td>
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<td></td>
<td>Approved for submission to CSS</td>
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<tr>
<td>N2.4</td>
<td>DS427 Draft Safety Guide: General Framework for Prospective Radiological Environmental Impact Assessment and Protection of the Public was approved, provided that the changes agreed by NUSSC are done.</td>
<td>Secretariat</td>
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<td>N2.5</td>
<td>DS442 Draft Safety Guide: Regulatory Control of Radioactive Discharges to the Environment</td>
<td>Secretariat</td>
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| N2.7 | **DS486** Draft Safety Guide: Establishing the Safety Infrastructure for a Nuclear Power Plant  
Approved for submission to Member States for comment | Secretariat | ASAP |
| N2.8 | **DS479** Draft Safety Guide: Operating Experience Feedback for Nuclear Installations  
Approved for submission to Member States for comment, provided that the changes agreed by NUSSC are done. | Secretariat | ASAP |
| N3.1 | **DS495 DPP** Draft Safety Requirements: Regulations for the Safe Transport of Radioactive Material  
Approved for submission to CSS, provided that DS456 and the Safety Glossary (2016) are considered as documents to be taken into account in the development of DS495. | Secretariat | ASAP |
| N3.2 | **DS494 DPP** Draft Safety Guide: Protection against Internal Hazards in the Design of Nuclear Power Plants  
Approved for submission to CSS, provided that the changes agreed by NUSSC are done. | Secretariat | ASAP |
| N4.1 | **NST048** Draft Implementing Guide: Security of Radioactive Material in Use and Storage and of Associated Facilities  
Cleared for submission to Member States | Secretariat | ASAP |
| N4.2 | **NST020** Implementing Guide: Sustaining a Nuclear Security Regime  
Cleared for publication | Secretariat | ASAP |